

Amendments To Claims:

Please cancel claims 1-28 and add the following new claims 29-53. This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

29. (New) A method for darkening a surface layer of a material piece including zinc, wherein the material piece is anodically oxidized in a soaking bath including an aqueous solution of a hydroxide, characterized in that

the soaking bath has a pH value in the range of between 8 and 14,

the soaking bath temperature (T) is in the range of between 15 and 45°C,

the current density (i) for the anodic oxidization is in the range of between 3×10^{-4} and 0.5 A/cm^2 , and

the material piece is placed in the soaking bath at the beginning of the anodic oxidization after the voltage has already been applied.

30. (New) The method according to claim 29, characterized in that

the method is carried out using a direct current having a current density in the range of between 2 and 30 mA/cm^2 .

31. (New) The method according to claim 29, characterized in that

the solution of the soaking bath includes an alkali or ammonium salt,

the concentration of the alkali or ammonium salt is in the range of between 10 and 60 g/l; and

the alkali or ammonium salt is selected from the group comprising phosphates, acetates, carbonates, sulphates, oxalates, citrates and borates of alkali metals or ammonium.

32. (New) The method according to claim 31, characterized in that the pH value is adjusted using a corresponding concentration of NaOH or KOH.

33. (New) The method according to claim 31, characterized in that it is carried out at a pH value of greater than 13.

34. (New) The method according to claim 31, characterized in that the anodic oxidization is carried out for a processing time (t) of between 1 second and 10 minutes.

35. (New) The method according to claim 34, characterized in that, the anodic oxidization is carried out for a processing time (t) of between 30 seconds and 3 minutes.

36. (New) The method according to claim 31, characterized in that it is carried out using a direct voltage.

37. (New) The method according to claim 36, characterized in that the bath temperature is in the range of between 15 and 30°C and the current density (i) is in the range of between 3×10^{-4} and 0.15 A/cm^2 .

38. (New) The method according to claim 37, characterized in that the current density (i) is in the range of between 0.3 and 20 mA/cm^2 .

39. (New) The method according to claim 36, characterized in that the soaking bath includes 25 to 35 g/l NaOH and 30 to 50 g/l NaNO₃ or Na₂B₄O₇.

40. (New) The method according to claim 39, characterized in that the soaking bath

includes 30 g/l NaOH and 40 g/l NaNO₃ or Na₂B₄O₇.

41. (New) The method according to claim 31, characterized in that it is carried out using an alternating voltage.

42. (New) The method according to claim 31, characterized in that the soaking bath temperature is in the range of between 35 and 45°C and the current density (i) is in the range of between 0.1 and 0.15 A/cm².

43. (New) The method according to claim 41, characterized in that the soaking bath includes between 10 and 35 g/l NaOH and between 30 and 60 g/l NaNO₃ or Na₂B₄O₇.

44. (New) The method according to claim 43, characterized in that the soaking bath includes between 25 and 35 g/l NaOH and between 40 and 50 g/l NaNO₃ or Na₂B₄O₇.

45. (New) The method according to claim 41, characterized in that the soaking bath includes between 10 and 15 g/l NaOH and between 10 and 60 c/l of an alkali salt selected from the group comprising phosphates, acetates, carbonates, sulphates, oxalates, citrates and borates of alkali metals.

46. (New) The method according to claim 29, characterized in that, before the anodic oxidization, the material piece is subjected to a soaking treatment in an acid.

47. (New) The method according to claim 46, characterized in that as the acid at least 0.5 M H₂SO₄ is used and the soaking treatment is carried out for a period of at least 10 seconds.

48. (New) The method according to claim 46, characterized in that as the acid 2 M H₂SO₄ is used and the material piece is annealed after the soaking treatment for a period of about 1 hour at a temperature of about 200°C.

49. (New) The method according to claim 29, characterized in that, after the anodic oxidization, the material piece is subjected to a soaking process in an acid.

50. (New) The method according to claim 49, characterized in that as the acid a 10% CH₃COOH is used and the soaking treatment is carried out for a period of at least 30 seconds.

51. (New) The method according to claim 29, characterized in that the surface layer is provided having a material thickness of at least 8 μm.

52. (New) The method according to claim 29, characterized in that the surface layer includes at least 50% by weight of zinc.

53. (New) The method according to claim 29, wherein, for the anodic oxidization, both electrodes are formed of a material piece having a surface layer including zinc.